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AN ALMS-HOUSE IN SHROPSHIRE.

ONE day last autumn, after fifteen months' arduous and incessant literary duty, I gladly for a time turned my face from London. My destination was to one of the western shires, there to perform an act of pious duty in a charitable foundation, said to be placed amidst the solitude of a wild moorland scene. I had rather a humble idea of what I had to behold, arising from a depressing conception of the meaning of the word 'charitable;' but the object of my journey rendered it of little consequence to me whether the place should prove a palace or a hovel!

At the early hour I started, it was cold and rainy; but I was too much delighted with my hard-earned holiday to be affected by disagreeables of a small kind. They proved, however, numerous enough to put the question of patience to the test, for instead of four in the afternoon, it was nine at night when I reached the little town to which I was destined. This I found to be full of forge-fires, smoke, and

I had yet four miles to go through a wild country, and the night extremely dark; but placing myself and treasures in a fly, I soon set forth again into the wildness of the night, for intensely wild and keen blew that autumn wind; so much so, that had I been set down blindfolded on the spot, I could have told that either a great open tract of country, or the sea, lay near at hand.

Though the highway was little more than a succession of rugged and narrow country lanes, its hedgerows could be scarcely seen. Sometimes these were still more shadowed by the overarching trees of park or field: sometimes the stacks of the new harvest scratched against the windows of the vehicle, or cast a yellow gleam within; sometimes I breathed the unrivalled odour of that season's hay; at others I caught pleasant glimpses of fire and candle light in farmhouse and cottage; sometimes of the flitting lantern-light, far away in solitary sheilings. But on the other hand, and seen the more intensely for the pitchy night, ran that marvellous backbone of Staffordshire and Shropshire, lurid with countless heaps of coke and ironstone burning in its first process, as well as with blast-furnaces belching forth their flames like so many Heclas. This is, in reality, a wonderful sight; the more so when we recollect that the first Levison was 'ill content' with William the Norman for this 'poor moorland fee.' But time changes material values as well as men; and here this mighty creation of riches will proceed, as far as iron is concerned, perhaps for countless ages yet to come; and as respects coal, till to the fireplace, was the ample bed-place or recess,

new changes arise, and science has eliminated out of nature the secret of a new combustive power.

At length the vehicle stopped before a park-like gate, painted white, and opening between two lodges prettily overhung with hollies and other shrubs. The driver then led his horse up a short avenue of elms, and stopped at other gates, lofty, and of beautiful wrought iron. Here stood my dear relative, as well as the handsome old serving-man of the building, and I was led-yes, led is the word, for I was still a child in the heart of the aged alms-woman - up the flagged side-path of a shaven lawn, and into a lengthened cloister; and such a cloister as few except more ambitious collegiate buildings can at this day Here were some attendants with lanterns, but the richest and warmest light fell far and wide upon the cloistered pavement through an open door. To this I was taken; and a little scene was before my delighted eyes that, for its air of comfort—I might almost say opulence-its excessive quaintness, its sense of holy, nay, as it impressed me, its religious peace, will never fade from me whilst life remains. Perhaps I was a partial looker-on, perhaps I might be influenced by the mingled and many-coloured feelings of that night; but though I remained there six months, this first impression was neither dissipated nor changed; on the contrary, only intensified and mellowed. I would, indeed, that one of our best painters could have seen that room that night: it was, indeed, a worthy scene, with its blended lights and shadows, for the richest ministration of art. I was at Preston Hospital, in Shropshire; my aged relative was an alms-woman-I was in her quaint home.

As soon as the door was closed, and I had thrown off cloak and bonnet, and drawn a quaint high-backed chair to the fire, I had time to look about me. The first brave thing was the fire itself-a mass so full of sparkling life as to light all but the distant corners of the room, like a jet of gas, and, by its bounty, enough to astonish a Londoner. But it is only in coal counties that you see such fires; and yet there was need of it, for the room was large and very lofty, and its pavement, stone, though warmly carpeted throughout. The walls, newly and tastefully papered, were in thickness much like those of the keep of a Norman castle, and gave comforting assurance of warmth and protection when winter winds and snow should sweep across the moors. Opposite to the door, opening, as I have said, so picturesquely from the cloister, was a large and antique window running up nearly to the ceiling; across this swept a handsome curtain, as tastefully hung as in a drawing-room; and in the wall opposite so often seen in Scotland and on the continent. It was slightly raised above the floor, and across it was likewise drawn a curtain—the only thing that rather grated on my sight, and gave an alms-house air to the otherwise handsome room. On either side the fireplace was a large closet, the one on the side nearest the window having a corresponding casement, and serving as pantry and china-closet. Such, in addition to a small garden-plot, constitutes the domicile of each alms-woman. But the differing taste in embellishment, and the possession of numerous relics of by-gone days, make the seven-and-twenty homes in Preston Hospital strangely various, as I in good time saw.

Here great natural good taste, a love for decoration. the descended culture of an old race, extreme cleanliness, and carefully preserved means, had done all that was possible to make it a bright and pleasant home. Old china, cups and vases, graced the mantle-piece; above these hung portraits of children long dead or far away-one a miniature on ivory, painted by a French abbé in Dartmoor Prison, many years before. Then there was 'Dick' roosting in his cage; a cluster of pretty modern bookshelves, bearing a few cherished relics of a once rich library—the top shelf being crowned with rare old china—and a little antique silver urn of exquisite beauty. Then, spread about the room, were chairs of varied shapes, a capacious sofa, differently shaped tables too-one in its brightness shining like a mirror, another bearing on it the old family-bibles and their parchment scrolls.

So much for decoration. But a little table was now drawn cosily to the hearth. On this was spread a snowy cloth, country bread, butter, cream, cold roast beef, and steaming tea; and I in my old-fashioned high-backed chair, and my aged alms-woman in her pleasant easy one, sat fairly down to rest and talk. Both were necessities: we had not met for seventeen years; in that time the cherished living had become the reverenced dead, and, like myself, my aged alms-woman was worn out with unusual fatigue—she having waited for me in the little country town all day, only giving up my arrival as night closed in, and it was time to return home.

It was twelve o'clock before we retired to rest, and I lay long awake, wondering at the quaintness of my new home, and its solemn and monastic stillness; unbroken by a sound save the occasional baying of a watch-dog on a neighbouring farm, and the old belfry-clock as it tolled the hours. Even I, with my imperfect hearing, could note this last, as it multiplied its slow, sweet echoes in gallery, cloister, and room, and then swept out upon the wind to moorland wastes and hills. Then I called to mind that this noble charity was founded in 1725, or there-abouts, by a Lady Herbert—of that old race, undoubtedly, which had been prolific of so many noble men; two brothers of them, though at the antipodes of human opinion, having names illustrious in English letters: the one, Lord Herbert of Cherbury, born -contrary to the ordinary accounts-in this neighbourhood; the other, the 'sweet George Herbert,' who, with all his outrageous quaintness and incipient Puseyism, was not only a true poet, but the possessor of an exquisite human heart. His little poem, Man is all Symmetry, has unrivalled philosophic depth and beauty-a perfect gem, whose true meaning awaits the appreciation of a greater age of physiological knowledge

and medicine than our own; and whose life-one of those old Walton 'writ with an angel's pen'-will always present a charm for English readers, though they wisely smile at the old fisherman's occasional disputations against Puritanism, and what Lord Clarendon styled the 'Great Rebellion.' Then I went on thinking of the mother of these men, who, born at High Arcull. in this neighbourhood, bore the half-poetic maidenname of Magdalen Newport. Then I was led on to ponder upon benevolence as a human characteristicof its self-multiplying effects-of its magnificent power of nobly influencing remote causes-of its pre-eminence abstractedly considered as a virtue in alliance with human progression-of its being, under its higher aspects, the invariable accompaniment of the most perfectly organised and developed natures: and so, reaching my favourite class of speculations, I fell asleep.

The morrow rose, a brilliant September morningrich in sun and the exquisite perfume of mignonette from the neighbouring gardens. I rose betimes-for primitively early hours are the fashion here - and went out into the cloister, which was warmed and glowing with the rich young beauty of the day. I then saw that this large building formed three sides of an extensive square-a hall, ascended to by a flight of handsome steps, and used both as a chapel and school, occupying the upper portion; cloisters, with wide galleries and rooms above, forming either side; and from these, short wings, more recently added, branched out. The intermediate square, as I had seen the night before, was laid with a rich sweep of turf—as was the case in all the old conventual buildings-with flagged paths across it, the whole being bounded by the palisading and iron gates referred to, and which divided it from the outer lawn and avenue. The cloister opposite the one I now paced, exactly resembled it, with a similarly wide staircase to the fine gallery above and its diverging rooms, and a passage through to the old gentlewomen's plots of garden; everything was alike, with this exception, that here the school-house and matrons-dwelling occupied the angle. To add to the privacy, only doors open into these cloisters-all the windows, except those

of the galleries above, looking towards the garden. In addition to the original endowment by this Lady Herbert—who had the building imitated from that of a monastery in which she had been hospitably sheltered in the Tyrolean Alps—other noble donors augmented the charity from time to time; so that, at the present date, it is said to be an immensely rich one. Its farms and lands are spread far and wide about the neighbourhood, and are eagerly competed for by occupiers, who seem to be a thriving class; though little can be said for their education, their courtesy to the recipients of the charity, or their style of farming—many essentials of which, as the condition of their fences, gates, and roads, would put Lord Ducie or Mr Mechi in a

The original endowment of the charity was for the support of twenty decayed widows, and the maintenance and education of twenty poor girls between the ages of ten and sixteen years, and destined to be brought up as domestic servants. Spinsters are now eligible to the charity as well as widows; and the class of recipients seems to have been raised, till it now embraces the widows and daughters of clergymen, surgeons, landed proprietors, and others of the educated middle classes. The further this proceeds, the better: educated poverty is peculiarly deserving of compassion; and the more homogeneity of feeling, education, and tastes brought together in an institution of the kind, the better for all concerned; for no differences separate more widely or so effectually as those arising from education.

The charity is rather a private than a public one, though controlled by Chancery; the patronage being vested by the original donors in the Earls of Bradford. But all appointments are irreversible, except for flagrant misconduct; and it says much for the morale of a long line of old gentlewomen, that in a century and a quarter, there has not been more than one or two expulsions. Candidates are not eligible for admission expuisions. Candidates are not engine for admission till the age of sixty. Many thus go in merely to die, though others enjoy a green old age for some twenty or thirty years. One charming feature cannot be too highly praised, as it is a somewhat rare one in institutions of the kind—there exists no badge or distinctive mark of charity. In dress, in the reception or stay of guests, in absence from or return home, there is unconditioned liberty. The only points necessary for admission, in addition to that of age, are, that each candidate be of the Church of England, and that she deposit the sum of L.10 in the savings-bank of the neighbouring town, as a contingent against any extraordinary medical expenses. The depositor may draw the interest, or let it accumulate; and the whole may be willed away, or pass by heirship. The charity now supports twenty-seven old ladies, each of whom has two tons of coal yearly, and a home, such as I have described, furnished by herself. In addition, twenty receive L.18 per annum, and the remaining seven L.26—this larger stipend passing by seniority of admission to the rest as death makes vacancies. The sum of L.5 is also allowed for the burial-expenses of éach inmate. With the exception of general supervision and assistance in case of sickness, the duty of the With the exception of general supervimatron, who is also schoolmistress, is confined to a monthly visit to each room; but these are so charmingly managed, as to lose, in the majority of cases, all air of official duty. The loan of a book or newspaper, a friendly chat, or a neighbourly service, hide the formal duty; and in our case, these periodical visitations were amongst the most delightful episodes of my winter-

As for myself, I was most fortunate. Though not intending to make a long stay, I had brought my work, and was rejoiced to find a study. The next cloistered home to ours being vacant, owing to the permanent absence of the owner, it was most kindly given up to my sole use; and here, by half-past eight or so in the morning, one of the little incipient schoolmaids, in cap, bib, and apron, had lighted me a brilliant fire, and soon after I was cheerfully at work, my open casement-as long as weather permittedadmitting many tiny friends, in the shape of robin and sparrow. True, I had not many household effects—two tables, three chairs, a footstool, and a poker, comprised my worldly stores; but I was 'monarch of all I surveyed;' had stillness, light, and warmth, and my beloved books-what would I more? As time wore on, one of my feathered visitants grew very tame, ceased to mind the rustle of book-leaves or pen, brought his pretty red breast quite close to shew me, and would have perched upon my shoulder, had I remained long enough, I am sure. At half-past twelve, I locked up my study; had a saunter in our sunny cloister or in the fields; then dined, then rested, then had a two hours' walk far away amidst the wildness of the moors, the autumnal beauty of the woodlands, or beside the winding way of crystal brooks. At five o'clock, I returned; paid duty to the toilet; had tea; at six o'clock, went steadily to work beside our own hearth, my aged alms-woman sitting opposite stilly at needle-work, with 'spectacles on nose.' As the belfryclock struck nine, I put by; then came supper; a chat—bed. Thus the peaceful days flew on.

As they did so, my enjoyment of our cloister grew greater and greater. From it I had a fine view of that celebrity of Shropshire—the Wrekin; beyond it, that range of desolate hills, so exquisitely mentioned by

Sir Roderick Murchison in his great work the Silurian System; and at night-dark ones especially-I had all the Etna-like wonders of the Lea-Priory Forge-one of the greatest blast-furnaces in the world. sets were the loveliest, when strips of golden glory fell across the shadowed floor. Then slowly pacing up and down, the hope was constantly mine, that, should any self-sustained endowment or college be founded for the literary class, its building might have cloisters. idiosyncrasies attending the higher kinds of mental toil must ever be the same, and the cloister be as much a contemplative luxury to the true workers and thinkers out of an advanced human knowledge, as to a Roger Bacon or to Wycliffe, and those other large-brained monks, whose meditations on the corruption around them must have been an effective, if indirect, agent towards the liberation of human thought. For in this case, as in all others, the corrective power sprung up from within the boundary of the evils which awaited reformation.

Intent upon lesser things, but most peaceful and pleasant in their way, these good old gentlewomen much enjoyed their cloisters, the one opposite to ours especially. Here, on fine days, they might be seen chatting, or sauntering, or visiting each other in their quaint homes. No sign of fine weather was more sure than to see our opposite cloister populous; for just as in the 'weather-houses' of children, if the least cold or the 'weather-nouses' of children, it has been done be hermetically closed; if fine, these latter stood open, affording pretty glimpses of interiors: deep casement ledges filled with plants; snowy caps and bright silk gowns; and, if the belfry-clock had struck four, tea-tables and pleasant occupants. Considering that even the larger stipend is not 'infinite riches,' these old gentlewomen might teach a lesson in economy to many a wiser person. Almost all of them dress well; some support a daughter or grandchild; others lay by money; and almost all their homes have an air of well-doing and comfort. It is only a pity that a large institution of the kind was founded in such an out-of-the-way spot. At the time the hospital was built, the country around was to a great extent a huge morass, and the climate in winter must have been inclement in the extreme. In this respect it has not much to boast of even now; though drainage, enclosure, improved farming, canal cutting, and a recent railway have effected wonders. In the neighbourhood of the county town were lovely sites; and an institution of the kind raised on some green acclivity of the Severn, would have had by this time an island fame. As it is, its isolation brings many disadvantages, not only as respects the laying out of individual incomes, but that social intercourse, so beneficial to all, but especially to the aged.

The children are well fed, and kindly treated, and behave with great respect to the old ladies. Twice a year—at midsummer and at Christmas—the latter dine together, appearing in great state of blond caps and silk dresses. Every few months, Lord and Lady Bradford, accompanied occasionally by their daughters or other visitors, drive over, stay a few hours, and make a kindly call of inquiry on each old gentlewoman: this without ostentation or intrusiveness, but with that suavity and simple kindness of manner which belong in so remarkable a degree to the better part of our English aristocraev.

manner which belong in so remarkable a degree to the better part of our English aristocracy.

As autumn waned into winter, my time passed very happily in my antique room: I only kept my fire the brighter as the days grew colder; made myself a screen by hanging an old carpet on some chairs at my back; and kept the casement shut, to the evident wonder of my little red-breasted friend. But occasionally I admitted him, treated him with some crumbs, let him stay with me for hours when the weather grew very cold; whereupon he learned to perch himself upon the mantle-piece above me, watch my moving pen, and

chirp if I looked up at him. One thing comforted me with respect to Mr Robin: when deep snows came, he was not a starved-out householder, but lived with Mrs Robin in a huge wheat-stack I could see from my window, where he had always a well-stored larder.

By the time Christmas came, I had resolved to stay till spring, as my presence was not yet needed in town. So I bought a pair of ponderous leather-boots, with which to traverse the deep mud of the surrounding lanes and roads, and the morass-like places I occasionally encountered in my voyages of discovery, and settled myself down to make the best of my quaint home, and the austere winter which gathered around it. Christmas brought the systematic cleaning of the great building from end to end; and after this came the school holidays. Such rubbing and scrubbing as there was, few can conceive. The tesselated marble floor of the hall underwent entire purgation; its quaint stools and forms were piled together in a huge heap on the lawn; the agent's rooms, the matron's rooms, the dormitories, the fine old kitchen, with its service of pewter-plates and dishes, the galleries, the cloisters, were all besieged by some six or seven little housemaids, in mobcaps and checked bedgowns, such as our great-grandmothers wore. The cleaning of the pewter, which takes place only once a year, is the most important affair of all. It has to be boiled, scoured, and rubbed-making altogether an elaborate process. But the reward comes when set on its oaken dresser, with holly between, and it shines like silver. Yet beautiful as it looked, as it scintillated in the blaze of the great Christmas fires, it is wisely kept for show; and we can but rejoice that the improvements introduced by Wedgwood's genius and science, have superseded all this intolerable drudgery of our grandmothers, and given us platters at once cheap and easily cleansed. As for our cloister, it was like a place in a state of siege, with chairs, tables, carpets, and other wonders of the old ladies' homes. Happily for me, I was left at peace in the shadows of my little study.

Snow had begun to fall, and the holidays were come. One morning whilst I sat at work, the snow lying thick on the outside of the casement, and weighing down the great leafless rose-tree which shadowed it, such of the scholars as performed little offices of duty came one by one to courtsey their adieus. The little letter-carrier was the last of these visitants. She opened the door, came very gently in, closed it, and stood in its deep shadows. At all times lovely, she looked eminently so now in her quaint garb, and with her look of holiday happiness. A small bundle in a scarlet handkerchief rested on her arm; her warm gray duffle-cloak was wrapped close about her; her bonnet was piquantly tied on with a little shawl, to keep it from blowing off in the snow and wind; and she formed altogether a picture, in her childlike innocence and Hebe beauty, such as few could have looked upon without admiration.

Our Christmas was a quiet one; but the last day of the old year brought grander things. I have a bachelor relation, who passes six days of every week in a railway Babel in Liverpool, notifying the arrival of American cottons, or the departure of English goods. He had obtained a brief holiday, and would come to see us. I therefore put by work and all signs of it; and the night before, set about the preparation of a grand Christmas-pudding—chopping suet, stoning plums, and so on. The next day at noon, with deep snow lying round, came our quaint, though not old friend, his pockets and carpet-bag filled with divers things for our aged alms-woman, for this was our little festival to her. Then came an hour's chat by my study-fire; then dinner of an elaborate giblet-pie; then a pleasant afternoon and evening, till it became time to see about the final elaboration of the great pudding. But, lo! in the hurry of the day, the eggs had been forgotten, and our good domestic, search where she might, could get

none; for the morrow was New-year's Day, and everybody was going to have a pudding. Fortunately, I am not turned easily from a good purpose, either in regard to trifles, or in things of more moment; and I resolved, though the night was truly Siberian, to set forth on this search myself, as it would never do to send our bachelor back on his journey of seventy miles without tasting pudding; so wrapping myself up, he and I set forth, the brilliant moonlight converting the night into day, and shining with inexpressible beauty on the great waste of snow around. To village and farmhouse doors we went; our appearance in some cases creating quite a wonder; but nobody had any eggs to spare, for everybody was going to have a pudding. Yet the walk and what we saw, would have made up for much greater disappointment. Such pleasant warm homes; such pretty rustic festivals; such jugs of home-brewed ale; such crab-apples dancing on the top; such steaming puddings, and pies, and roasts; such gossip; such merry children; such cheerful old men and aged dames-these, with the deep snow outside, the wild, solitary country, the distant forge-fires roaring on and on, made a whole such as no pen can describe. In most cases we were hospitably asked in-in some to taste the cheer. At last, after wandering through the deep snow of a primitive little orchard, whose russet tints and crystal rivulet I had in autumn-days stayed many times to see, we came to a small farmhouse, and were admitted into a kitchen, where a wood-fire roared up a chimney centuries old. A little new-born baby, its newly risen mother, and the father and grandparents, were gathered round, and being invited to the fire, we admired the baby, when we not only got what we sought, but also a hot jug of spiced elderberry-wine, against the tasting of which no negative would be taken. This little episode over, and many grateful thanks given, we returned home, and I finally elaborated the great pudding, as our aged alms-woman and quaint bachelor chatted beside the pleasant hearth. On the morrow, the goose proved splendid, the pudding superlative; the day was pleasant; the morrow also: and the next day, the quaint bachelor departed. It snowed incessantly all night; the next morning, a drift, three feet high against our door, fell forward into our room when it was opened. For full ten days, my walks were at an end; for four, we had no post; a drift, fourteen feet deep, lay on a declivity of the high road. It was a perfect Siberia in England; but everybody knows about that pitiless winter.

With the spring flowers, I had to take leave of my peaceful study and my constant robin. Partly from vant of leisure, partly as a matter of taste, I had made but few acquaintances amongst the elderly gentlewomen; nevertheless, a series of most pleasant tea-drinkings closed my peaceful visitation. The dear motherly hearts were full of interest, goodness, and human kindness-virtues which sit so gracefully on the old. There was no farewell more pleasant than that of an aged lady whose room opened from the great gallery above my favourite cloister. A lady in the strictest sense; it had been my habit to visit her chiefly on Sabbath-evenings, when throwing a shawl around me, and taking our great lantern, I wound my way up the wide old staircase to her door. Then going in, there was her glowing hearth, her small round table near it, her spotless handkerchief, her books, her light, her room all nicety and neatness, with pretty landscapes round its walls, the work of daughter-like accomplished nieces, and herself-the brightest picture in the room in her neat apparel, and with sensible and comely face. What true things must culture and refinement be, when they thus cleave to us in the ebbs of fortune and the decline of years! Another visit was to a cloister neighbour—one ninety years old—who, with her faculties yet bright about her, and as cheerful as a bird in spring, sits always by her hearth, saving i

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in summer-days, in an ancient costume of frill and kerchief; a sketch for Rembrandt, and as though ever ready for the beneficent summons of the Great Renovator. Nor did my little handmaids forget me; a deputation waited upon me with pincushions, needle-books, and markers enough to last a life. There was one from whom I parted with more regret than all—the presiding spirit of the place, whose friendship is the richest boon this sojourn afforded me.

Farewell noble charity!—may your hearths long be bright as when I saw them—your walls shelter the infirmities of age—and your genial beneficence soothe

the memory of past sorrows!

A VISIT TO THE FRENCH EXCAVATIONS IN ASSYRIA.

WE were lounging with our nurgilas after dinner in the Iwan or portico of the French consulate at Mosul, when one of the overseers of the excavations at Khorsabad came rushing into the courtyard, and with the most frantic gestures informed us that 'the chariot of Nimrod' had been discovered. As the Arabs always ascribe everything which bears the marks of antiquity to Nimrod, my French friends instantly set it down as a discovery of the chariot of Esarhaddon, whose name had been deciphered upon some of their inscriptions; and we had soon arranged a party to start the next morning, and to combine a visit to the old Assyrian's coach-house with a gazelle-hunt. We, accordingly, assembled betimes; and after my companions had settled matters with a bottle of the villainous aniseseeded raki of the country, to which they seemed quite to have accommodated themselves, and which they were never without for very long together, we managed to pick our way over the rough and unsteady bridge of boats ere the sun was well above the horizon. Anxious to make the most of the cool morning, we pricked sharply on for the first few miles. Our road, after crossing the river, wound between the two great mounds of Konyunjik and Nebbi Yunus, and thus led us through the centre of the ruined city which still bears the name of Ninevé. We passed between the remains of two gigantic towers which once guarded the gateway of the town, and crossing the treble line of fosses which still bear witness to the skill of the Assyrians in fortification, we entered upon the open country that stretches to the foot of the Armenian Mountains.

We could now make out the mounds of Khorsabad lying at the foot of the Jebel Makloub, a considerable hill which here advances into the plain, and forms a sort of outpost to the chain behind. Its name, though very difficult to translate into English, means something like the 'overturned' or 'discomposed mountain;' and certainly it is difficult to imagine rocks more discomposed than these have been. Huge blocks of stone appear to have been tossed about and piled one upon another, or are strewn in disorder down the mountain-side; while in some parts they form uncouth groups, much resembling those of the Chaos, and of the Valley of Héas in the Pyrenees. But our road lay over the plain, and we had not cantered far before the cry of 'Gazelles' was raised, and we saw a herd of these beautiful creatures bounding over the undulating ground on our right. Away went the Frenchmen, utterly regardless of the distance of the game. Away too, of course, went the dogs, but with very little chance of success, when so much law was allowed against them, for even the fleetest greyhounds find it a difficult matter to run down a gazelle without some advantage in the start or in the ground. Away went the cawasses as fast as their horses could carry them, and away went my dragoman, a great deal faster than he liked; and then, determining to

make the best of a bad bargain, and if I could not have a hunt, at least to have a good gallop, I loosened the reins, and my black Arab speedily brought me up with the rest. There was a deep water-course in our way, and we went at it nearly abreast. One of my companions reached the other side with the loss of his hat and both stirrups, and unfortunately it was he who had all the morning been loudest in his praises of his own horsemanship. The other—a cavalry officer too—was to be seen on the pommel of his saddle, and holding on, like grim death, to the mane. My dragoman was to be seen on the bank, and about half our followers were not to be seen at all—they had disappeared in the gulley! The gazelles had taken the direction of Khorsabad, so that we lost no ground by pursuing them; and by the time they had run us and the dogs out of sight, we found ourselves near the ruined walls which surrounded the Assyrian city.

Dismounting at one of the larger mounds, which evidently marked the site of a gateway or bastion, and descending into the trenches, I was astonished to find before me a most perfect and magnificent archway. It was built only of sun-dried bricks; but from its size and proportions, it was quite worthy of forming the entrance to a magnificent city. It had been uncovered but a short time before, and little more than the arch had as yet been excavated; but in the pavement of the road which ran through it, were the ruts left by the chariot-wheels, worn as deeply into the stone as they are at Pompeii. It is curious, that in this country, which was once so famous for its chariots, and where, as we see from the Assyrian sculptures, other kinds of wheeled-carriages were in constant use, everything of the sort should now be utterly unknown. The reader will remember the graphic account given by Layard of the excitement produced in Mosul by the great wagon with which he moved the sculptures from Nimroud. It was pro-bably the first that had been seen in the country for many centuries, and may possibly be the last, unless the visionary scheme of the Indian Railway should be realised, and a noisy, matter-of-fact steam-engine should come to disturb with its whistle the long rest of Sennacherib or Nebuchadnezzar.

The discovery of this arch was the more remarkable, that, with the exception of a small vault found some little time before at Nimroud, no other structure on this

principle had been uncovered in Assyria.

Remounting our horses, we rode along the line of fortifications to the street of mud-huts which now forms the village of Khorsabad. At the entrance to the village was a deep muddy ditch, over which we leaped our horses, and were cantering up to our night's quarters, when we heard a cry behind us, and turning round, saw all that was to be seen of my unfortunate dragoman; namely, part of a pair of legs projecting from the mire in which he had been soused head over ears. One of the cawasses soon got hold of his feet, and literally pulled him out of his unpleasant position by the legs.

On our arrival at the hut appropriated to the expedition, we found that the so-called chariot had been brought down from the mound to meet us; but 'Parturiunt montes, nascitur ridiculus mus;' and the long and highly ornamented spokes, the body of bronze inlaid with ivory, and the pole, with its ram's head at one end, which we had so often seen in the sculptures, and which we now expected to see in reality, had dwindled down to four little wheels of solid copper, hardly as large as cheese-plates. A quantity of decayed wood was found with them, and the remains of the iron axles: but there was nothing to indicate the size or shape of the carriage to which they had belonged, though it was certainly neither a chariot nor a battering-ram, the wheels of which are the only ones that are represented in the bass-reliefs.

We did not long delay paying our respects to the mound that marks the site of Esarhaddon's palace, and in which such interesting sculptures were discovered by a former French consul, M. Botta, ere the English excavations at Mosul and Nimroud had made much progress. The number of sculptured bulls found here speaking, in better preservation than those at first found by Layard, a pair of them were purchased by our government, and now form one of the chief attractions of the Assyrian collection in the British Museum. M. Botta's trenches had mostly fallen in, or been filled up by the earth washed down into them by the winter rains, so that little beyond the shape and arrangement of the rooms was to be made out; but I was hurried through this part, and carried off to the latest and most interesting discovery in the mound what, I was assured by my French friends, had been the wine-cellar of the king of Assyria. We soon reached a part of the excavations where the trenches had literally been dug through piles of terra-cotta vases; and I was shewn, on some broken pieces, the traces of a glutinous substance, which were 'evidently the remains of dried-up wine.' In fact, they had carefully washed out one of the vases, and given the proceeds to one of their number to drink, with his eyes bandaged, and he had pronounced it to be a glass of the most excellent Malaga! Unfortunately, all the other authorities upon the subject of Assyrian antiquities seem agreed, that the so-called wine-cellar was a place of burial, and that the delicious Malaga must have been a decoction of some of the descendants of Nimrod!

A short time before, I had seen in the English newspapers a report sent home by the French Commission, of the discovery of handsome pillars and colonnades of considerable extent; and on inquiring for them, I was shewn a plaster-wall with beadings on it, somewhat resembling half-columns. It stood at the head of a very handsome staircase, which appeared to have formed the entrance to the private apartments of the palace. The only other object of interest was an palace. arched culvert just being cleared out, but which seemed to begin and end nowhere. After looking at this, and watching one of the party as he vainly endeavoured to take a photograph of it in the dark, we descended again to our house in the village. I must, however, mention that our photographic friend had left one of his guttapercha trays upon a sloping stone outside the trenches, exposed to the full heat of the sun; and that when he had finished his work, and returned to look for it, the only trace that remained of it was a half-dissolved mass at the bottom of the slab.

In the evening, we sallied forth with our guns in search of the snipe that abound in the wet rice-fields of Khorsabad. We had not gone very far before my companion stopped, and begged me to walk along cautiously, as we were in a particularly good place for game; and if we could only manage to see them on the ground, we might have a chance of bagging one or two for our larder. Of shooting flying, he seemed to have no idea; and he was very much disgusted at my killing the birds as they rose, as the report of the gun made those which remained on the ground, and which he might otherwise have shot at there, lie too close to be seen. We had, however, very fair sport, and we returned with a good bag of snipe and wild-fowl.

On the following morning, after another visit to the trenches, we mounted our horses and cantered back to Mosul in a couple of hours, reaching the hospitable house of our consul in time for a late breakfast. the way, I shot a cattar, or pintailed grouse, from curiosity. The flesh of this bird is dry and coarse, but its plumage is very beautiful. It is met with in incredible numbers in the plains of Mesopotamia; and the flocks of them I saw there, first enabled me to realise the descriptions of the migrations of the American

pigeons, which are said to darken the sun in their

It is very unfortunate that the spirit of jealousy between France and England, now apparently so happily extinguished at home, should have been fostered and inflamed in the East by the petty jealousies of those whom science and antiquarian research should rather have united. The Assyrian excavations have been a constant source of irritation between the subjects of either country who have been concerned in them, and their disputes are believed to have occasioned no little trouble to the ambassadors at Constantinople, It is, however, to be hoped, that now that the Union Jack and the Tricolor are waving in harmony in so many parts of the world, they may not be separated in the East, by those whom the same hope of discovery and spirit of investigation have brought together.

A HOME EMIGRATION.

Ox a fashionable-looking morning, ten years past, a gay group, consisting of three ladies and three gentlemen, came out of a cake-shop in the main street of a southern (Irish) spa-town, chatted awhile beyond the door-step, and then parted; the ladies turning up, the gentlemen down street, as is the country phrase. At that moment a young man in mourning, with a frank, fine countenance, darkened by what looked to be unusual sternness, was walking rapidly up the street towards them

'Good-mo'nin', Checkley.'
'How d'ye do, Checkley?'

What's in the wind, John, eh?' cried the three gentlemen at once.

'How d'ye do, gentlemen?' rejoined the young man addressed, passing the speakers as if indisposed to further parley.

'That's a match,' said one.

'Who? Checkley and Jane Delmege?'

'Yes.

'No, I say: an old fox is not trapped so easily. Report says all is not right over the water.'

By Jove!' cried the first speaker, after looking back, 'she's distanced him already, or he's taken himself off. Her fortune wouldn't do, maybe.'

'It won't do, depend upon it, if it would-of which I know nothing,' was the rejoinder.

The ladies had made a little move preparatory to the pause to speak, and looked blankly at one another as Mr Checkley raised his hat and passed on-abruptly rather than hurriedly, as if he lacked the inclination rather than the time to stay.
'What on earth ails him?' exclaimed the eldest of

the three. 'I'm sure I don't know,' answered the second. 'Nor do I,' was expressed in the countenance of the

voungest, but she did not speak. She watched the young man's progress until his moving round a corner into a street off the main one took him out of sight; and when, after a moment, as she and her companions turned in the same direction, she saw him go by her door without a glance towards the house, an expression of both pique and perplexity gathered round her parted lips and soft brown eyes. When left at home, she entered as if scarcely seeing whither she was going. She walked into a parlour, sat down on a sofa, and remained for some minutes pulling at the ends of her sash, absently, as if her thoughts had got into a cross-

knot which she was endeavouring to disentangle.

knock at the hall-door startled her out of her reverie;

she rose, and moved towards a large bow-window; as she reached it, the subject of her thoughts walked into

the room. 'You are alone?' said he.

'Yes,' she replied, 'I am, Mr Checkley.'

Intent on his own thoughts, he did not seem to notice

the coldness of her manner. He took her unoffered hand, dropped it, and, turning to the window, looked thence for some minutes before he spoke again.

he said slowly

'I came to bid you good-by.' The lady's counte-nance changed, and changed again. She looked relieved rather than otherwise when he had added: 'I am going to emigrate. Not to America,' he continued, following her eyes to a large map hung upon the wall; 'nor to Australia. I am going further from you, Jane. I am going to do what will divide us more widely, more finally. I am going to quit the position, and not the place which I was born in. After this week, you can no longer give me your acquaintance-I can no longer accept it. I came to see you once more, upon the footing of old times-happy times to me, I came to make a parting request to you-that you will hear me for a few minutes, and without reply. This morning, all I possessed was swept from me-at a blow. I was left but the bare means of maintaining my orphan brothers, by entering at once upon a servile employment. I have made up my mind to do so. But I had my heart too, to—I could not reconcile that to my debased position. I cannot meet you upon an equal footing; I would not meet you upon any other. Before I leave you for ever, I came to tell you, in words, that I love you; that I sought you with the hope of winning you; that I only waited to feel it would not be presumptuous in me to expect your preference. Remember that I loved you fondly and frankly, as long as I dare ask you to become my wife; I tell you so now solely as an avowal due to you, not for my own sake. When I entreat your silence, you cannot misconceive my motive. You could answer me now in one way only, and I do not need to be rejected. Give me your hand once more, for old times. You could not hold acquaintance with a carrier? No words? God bless you! Good-by, Jane—good-by.'
This strange monologue was spoken without pause,

although deliberately. The speaker had quitted the house before the lady, whose breath he had taken away by the surprise, could have spoken, had he wished it. She was disappointed, bewildered, pained. She had been awakened, and found the treasure-trove of her dream-time gone. The mystery that had hung like a golden gossamer between two young lives and the world was withdrawn. That unspoken confidence had been explained away. That pleasant relation, so familiar, yet so distant, so fond, and yet so fearful,

was to be no more.

And he was to be a carrier!

And what could she do? What could one do in whom the genteel instincts, tastes, and sympathies, loves, hates, and aspirations, of three county families were interwoven and bound up closely as the three strands of the broad auburn plait wound round that fair and puzzled head? What could Jane Blakeney Dawson Delmege say to a declaration from a carrier? Nothing. And she could not be sorry that confusion had been beforehand with reflection in preserving silence. For a long time she stood still where he had left her—no eyes lived over the way to watch her. Spring Lane was a one-sided, semi-rural street, stretching towards the country, like a fashionable forefinger extended by the town to the neighbouring rusticities. Its upper windows looked into the deer-park of the manor; the lower ones upon the blank dead-wall. At last she moved away, went up stairs, put away her gloves and bonnet with a sigh, as though something else was laid aside with them in the wardrobe. She walked into the drawing-room; opened the windows wider—she felt as if the room required more air; sat down with her hand under her head; and glancing along the soft green grass and shadowy trees, so well known to both herself and him, her mind ran over that strange interview: then further back, to other

conversations, other mornings, till a mist came over both. For a moment, she could not see quite clearly; but it passed away in the twinkling of an eye; and as Sir Harry's carriage rolled by to a call next door but one, she could distinguish every member of the party. She closed her meditation, by resolving to say nothing to her family of what had occurred-to let John Checkley's course disclose itself. It was enough that his heart was wrung, poor fellow !--it would ill become her to bare it to the world. Then came her mother's knock; and as a first step to her part, she retired out of the way of question as to whom she had met since breakfast. On coming down to dinner, she found that some passing town-topic had diverted all probability of embarrassing inquiry. It was not till the same hour next day that the facts of the change in John Checkley's prospects came coherently before her. He had 'outrun the constable' in the report of his own misfortunes.

'He should have kept matters quiet for a little,' said a guest at table. 'He might have bolstered up the

property with some pretty girl's fortune.'
'That could but break his fall, and give him a new companion in it,' replied Mr Delmege. 'But that he might have done so, I have very little doubt.' Jane's cheeks burned; but her father avoided looking towards her side of the table. 'That he might, and did not, should increase his friends' esteem for him. Checkley is a sterling fellow-a thoroughbred gentleman, be his position what it may.'
'Well, I think he might have done better for him-

self, and for others too,' rejoined the guest. of decent family cannot sink alone. A man owes it to his connections to hold his head up, if he can at all. Checkley ought to have interest enough to get a

commission.'

then.

"Live horse, and you'll get grass!"' quoted Mr

Delmege, with an expressive shrug.
'Fact!' returned the guest, smiling. 'I only hope his brothers may be willing to do as much for him.

Here the conversation dropped. The heroism of John Checkley's resolution-time, and place, and cirremetance considered—was facilty recognised by all present; but every one had a motive, through politeness or prudence, for not choosing to enlarge on it just

Not quite one year before, John Checkley entered on possession of a middle interest, old as Queen Elizabeth, in a large tract of land in 'good heart' and favourably located. It brought with it the burden, or, as he would rather say, the privilege, of providing for two brothers, twins, and many years younger than himself. As playthings and darlings to him and his bride-elect, he looked forward to rearing and training them, to settling them in professions, or dividing with them, in due sea son, a property trebled in value by his care and skill and the 'good time coming'—the millennium of the farming interest. He saw nothing to prevent his com-pleting all his schemes, realising all his dreams. He planned and experimented, studied and worked; and through all he loved. Absorbed in the small pleasures and trials of his daily life, sun and wind, meeting and parting, took his time and thoughts from the one serious circumstance most likely to affect him. In the distance, like a rain-cloud far away, but so lying that a single change may bring it down, there was a danger he had scarcely looked to-a bond guaranteed by his father for a sum extravagantly beyond his means to meet. John Checkley, senior, had the satisfaction of rescuing the county treasurership from the hands of a prudent, well-principled plebeian, and so went to rest with his fathers. His aristocratic friend, the treasurer, 'robbed Peter to pay Paul'—it was so he drank claret. He used the county funds for his own immediate purposes, fully bent on making his tenants pay up to the grand-jury; but, meantime, he died. The heir came into possession, but considered that his own debts

should take precedence of his father's; the rather that, they being yet uncontracted, there was no obligation whatsoever to discharge them. It was a mere extension of the common law of honour. He shut his ears and his pocket on the creditors; and down came the county upon poor John Checkley. In an hour, his all was seized-crops, stock, furniture-everything except two horses and two carts purchased by himself. It was, indeed, rather to foil the bailiffs, so far, than to serve 'the master,' that these were claimed and kept for him by his workmen; so worthless were they in comparison with what the law had laid fast hold on.

Then John Checkley looked around him. It was easy to estimate his resources. He had relatives; but through them nothing could be gained without delay, perhaps not more even with it; and he could not afford time for the trial. He put that chance out of sight. In fact, he possessed nothing but these carts and horses: he could count on no other reality for support of his orphan brothers. On these, then, he was to

speculate.

When he had quitted the presence of Miss Delmege, he returned to his own home, only to yield it up to strangers. He gave up his accounts with his lands to a receiver, and then resolutely turned his back upon Monally, and, so far as was possible, on all associated with it. He took lodgings for his brothers and himself, and by the week's end had disrated himself from the genteel company of a ten-miles-wide circuit around Fountainstown by means of advertisement, that 'John Checkley, carrier, solicited public custom for the conveyance of goods, &c.' By being his own 'guide,' he would himself have all the profit of his undertaking; and he had no desire to avoid that office. His pride was of that proudest sort-that when down, will second circumstance in sinking itself further; and, progress being the law of events, strikes the bottom to make sure of an uprise. From Fountainstown to the next seaport, twenty miles distant, carriage paid ten shillings the ton. He could accomplish the journey twice in six days, and thus average at the outset L.2, 5s. per week-L.117 a year. And when his horses were fed and stabled, there would still remain sufficient for a young man and two boys to live on.

Coals were the steadiest article of import; to these, after a trial, he confined himself; and 'John Checkley solicited the public of Fountainstown to try his coals. Of his former associates, some dealt with him for their own convenience; others gave him their custom through good-nature; and others, again, patronised him through impertinence. The money of all went into the same purse, and that purse was filling; John Checkley was prospering beyond his hopes. Not a few of his old companions met him almost as familiarly as ever— when they saw him; for his frieze-coat and felt-hat could easily pass unobserved as his; and the distance from the footway to the middle of the street, where he walked after his cars, might as well be miles as inches to those who did not chance to look across. He had had, too, invitations to some parties-of bachelors; but steady and good-humoured refusals following each, they ceased. The feeling that dictated them was neither gratified nor offended: it died away quietly,

like most good easy things.

The relation that he himself had prescribed existed unvaried between him and Miss Delmege. They avoided each other so cautiously, that accident had all the credit of keeping them from meeting. If reliance on her sympathy had had any part in his motives or expectations, he was disappointed; she had accepted in full his renunciation of their acquaintanceship, but she had gone no further; she had not fulfilled his bitter prediction, 'that she would marry into the next marching-regiment, to do away with all remembrance of her courtship with a carrier.' Two years from their parting interview passed by, and such a marriage, if

not any marriage, was seemingly as far as ever from

At the close of that time, an accountantship in the Fountainstown Bank became vacant. The manager, a stranger in the town, who had taken a fancy to John Checkley's mode of doing his own business, offered him the place. The twins then conducted the home-business during bank-hours, still, by a little management, not omitting a fair share of school-duty; and the eldest brother's salary was added to the common stock. After six months more, there came another change. John Checkley quitted Fountainstown, for, report said, a situation of more ease and trust in England. One of the twins succeeded to the place in the bank. 'The interest in Mr John Checkley's store, a large quantity of coals, a number of horses, cars, &c.,' were 'cried' and sold, and the proceeds lodged for the second of the twins, who earnestly desired to attain a profession hereditary in the family. The lad himself departed with full light heart to enter on his new pursuit. The twin accountant soon followed in his eldest brother's steps to England, and a higher post; and the Checkleys were lost sight of in Fountainstown for a time; seldom even named, except that, at the club-meets, if the fox ran towards Monally, some passer-by conjectured that, when the debts were cleared off-yet a distant prospect-some member of the family would repossess the old place.

John Checkley returned as manager long before anybody looked to see him back. His thorough knowledge of the complicated relationships and connections of the neighbouring gentry, was of no small commer-cial value in troubled and changeful times: it secured him the place of his now superannuated friend. It happened to be at the same season, and nearly at the very hour, that saw him part with Jane Delmege some summers gone, that he now re-entered Fountainstown; but he felt this forenoon much finer than that wellremembered one, which had left a chill upon his recollections. His heart opened to the old places, and the

old people too- the neighbours.

That Miss Delmege was still single, was a fact that made itself known to him, unasked, during the first hour's exercise of his new duties. Mr Delmege had engaged in milling; and to spare the time of a confi-dential clerk, and avoid the risk of trusting other parties, Jane sometimes walked to the bank, to lodge or draw any considerable sum. Here her old lover encountered her. Hearing her name called out, he turned round, and found her standing before him. Her hand was extended with a cheque; but he could not do less, for old acquaintance' sake, than offer to take both together.

'You've returned here,' observed she, with some

embarrassment of manner.

'Yes:' he refrained from adding, 'as manager.' could perceive that fact-and continued: 'And I am not sorry to find myself once more at home.'

Some indifferent remarks followed reciprocal inquiries for Mr and Mrs Delmege, and the twins. His years of absence lay, bridge-like, between their past and present: it was ground on which both stood at ease.

'May I thank you to look at that,' said the lady at length, glancing at the cheque-'I am rather in haste.'

Certainly; excuse my detaining you so long, plied the gentleman, as he took up the fluttering bit of paper. Then adding: 'One moment; pray pardon me; I am still new here,' he moved towards his own office, reaching, as he passed, the cheque to an accountant. Miss Delmege saw, or thought she saw, his countenance changing, meantime, to the official dubiousness of 'account overdrawn?' It was with a proud swell of the heart she felt she had come to claim money, not to ask credit. She could expect no tender remembrance of the past from the young manager, and she looked for none in transacting business with him. And

yet she misjudged somewhat the feelings and motives that she canvassed; they leaned over the counter far more than she supposed. Never had John Checkley been so little disposed to quarrel with her conduct as at the moment when she was questioning herself of its necessity, or even its dignity. He had condemned her weakness before he had had opportunity to estimate his own. It was with a thrill of the heart he remembered that his old avowal was to that hour unretracted and unrejected-that he was, in fact, her suitor still, if he desired to appear in that relation. It was this returning love that had swept across her path, and ebbed away with changing circumstances years before, which now said to itself: 'It might perhaps serve her better than in aiding her father's projects if'a great letter D cut short suppositions. A fair balance in the book before him, shewed that the Delmeges in nowise needed friendly aid. They were yet well to do -remarkably well for these overwhelming times. The paying of the customary parting compliments was all needed at his hands just then; and he returned, feeling himself a little put aback, though why he would have found it hard to say. While the teller and Miss Delmege counted and recounted the money, he filled up the time for himself with a vague and rather careless expression of 'having purposed to inquire for Mrs Delmege as soon as business would permit.' Whether it was, that through the obviously increased coldness of his manner, Miss Delmege saw something of what really had been passing through his mind, or that she was prompted by the habit of hospitality, she thought proper to reply, that mamma would be very happy to see him.

They parted: the lady to go home, and make a very observable miscount in her transfer of cash received: the gentleman to go through his books with a brain not altogether clear. Through debits and credits flitted many strange items. Hopes, fears, doubts, took place of pounds, shillings, and pence; ranging themselves down the double columns, mingling and changing, till at length the manager brought them to a check.

'Why not to-day?' said he, shutting up the book.
'It is not I who should be backward, if she is willing to recall old times; and if not, the sooner I know her mind the better for my own.' This settled, he was able to give all his attention, if not quite all his heart, to the interests of the worthy governor and directors to whom he was indebted for the means to press his own just then. This very thought was enough to make a hopeful lover a zealous, earnest man of business; and the new manager gained the top of the wheel in the rapid revolution of genteel opinion that day in Fountainstown. Long-headed vice-chairmen of poor-law boards, starched J. P.s, and affronted forty-fifth cousins affiliated with as kindred genius, or hailed as the triumphant and irrepressible aspiring of thorough breeding, what the manager set down to a simple, honest instinct, favouring circumstances, and perhaps one little incident that he would not return on to analyse. The county club talked of the height of his forehead; he in his inmost soul thanked Providence. When the clock struck three, he sprang, like a school-boy, from his seat, oversaw the closing arrangements, and hurried away once more to the old house in Spring Lane.

The ladies were at home. Checkley began something to the younger of 'fears he might be even more occu-pied the next days,' but her mother's welcome and inquiries cut short an explanation that was not much needed. Jane scarcely spoke. Mrs Delmege invited him 'to stay, without ceremony, for the day, believing that he was free from home engagements.' He confirmed her suppositions; then paused, and looked at Jane. Jane looked out of the window; she remembered he was now manager. He, too, remembered the same fact, and it prompted acceptance of the invitation, even though she would not second it. He laid by his hat,

and with it the remnant of constraint that had hung round him previously. Conversation was resumed and kept up between him and the elder lady; the younger sat in the window, listening or thinking, as might be— Checkley wondered which. Yet when, on the entrance of a second guest to Mrs Delmege, an opportunity of ascertaining offered, he would not use it. Mr Delmege was expected home to dine; and the manager desired to make sure that, taking one thing with another, he would be acceptable as a son-in-law. He was not wholly sanguine of the result. For himself, he had attained a full sense of the 'nobility of labour;' and could look with ease—without envy or contempt—on those who had not had opportunity to make a like acquisition. He could make ample allowance for the sway of feelings that, save on one point only, could no longer give him trouble. His apprehensions of refusal were just strong enough to make acceptance delightful. Meantime, he made his passing companionship agree-able to Mrs Delmege and her friend; and meantime, too, Jane withdrew from the window, and joined their little group. Perhaps the recollections wafted thither, with the odour of the primroses and cowslips from over the park-wall, were not altogether pleasant.

Mr Delmege arrived in due time. His welcome to

our new manager and old acquaintance, my dear,' was both hearty and discriminative—he was just the man to make his feelings felt. The manager was made to make himself at home. He might have forgotten there was such a thing as coal in creation, had he not been keeping it determinedly before his mind's eye all that live-long summer afternoon.

'Take your wine, Checkley. Here's your good health, and further promotion!' cried his host, when the ladies had passed away to the drawing-room.

As a most natural apropos to his acknowledgments, came an avowal of the young manager's 'entire satisfaction in his present place, if, only, the position he had some time held in Fountainstown, formed no bar to his pressing an old, unchanged attachment to Miss Delmege '

'Not a bit of it,' answered her father, interrupting him. 'Am I not dabbling in trade myself now? miller may shake hands with a collier any day. Jesting apart, my dear Checkley, that thorough-bred idleness we Irish gentry used to pique ourselves upon, is fast becoming obsolete—may all our woes go with it! If Jane be pleased, as I have very little doubt she will be, I know no one in whose hands I should hold her happiness more safe. I know, my dear fellow, and feel how handsomely you acted towards my family, at a time when Jane's little fortune would have been a matter of some moment to you.

John Checkley sprang up stairs three steps at a time. The two elder ladies looked round in surprise to see a gentleman so soon in the drawing-room; Jane kept gazing straight before her, till, at a whisper of 'Will you allow me to speak one moment with you there? she rose and walked with him to the window.

'Do you remember, Jane,' said he, 'the last time we

stood here together?"

'It was not here-it was down stairs,' she replied with a blush and half smile.

'True: so it was indeed. That is a favourable Will you reconsider now what I said to you On my side, all is the same. I took your hand then without hope or wish to keep it: there is mine now; will you take it?—'tis a hand with a heart in it.'

'I did not expect you would ever think of me again,' said Jane ingenuously.

Do you suppose I ever ceased to think of you?' 'Not quite, perhaps. I did not deserve remembrance

from you.'

One month after, John Checkley gave Jane Delmege a partner's right in the honours and emoluments of the 'Bank-house.' Across the river, in the distance, lies Monally, its old trees and gray walls fair in the sunshine of a pleasure yet to come.

WHAT IS AN OVAL GUN?

STIMULATED by the war-trumpet which now resounds throughout Europe, we took up arms some time ago in our own fashion, presenting our readers with a short description of the various kinds of fire-weapons employed up to that period in military service. We exhausted the list. No important firearm of any description remained to be particularised. Yet a little reflection on the relations between demand and supply might have awakened a suspicion that the list would soon be extended. In times like the present, when the military resources of nations in all that relates to engines of war are so nicely balanced, the discovery of a cannon able to project a missile a few yards further than any other, may involve the battering down of a fortress, the conquest of an enemy, the termination of a war. Mr Lancaster, the gunmaker of Regent Street, among others, has been at work. He has turned his attention to the improvement of large firearms, and, we believe, with success. anyrate, the new class of gun and dispatch boats, which the shallowness of the Baltic demands, and which, mushroom-like, have sprung into existence with such marvellous rapidity, are armed, as newspaper reports tell us, with Lancaster's oval guns. Oval guns! One hardly comprehends the meaning of the term. discovery of a new cannon of tremendous power just at the present time, when we have an enemy to chastise whom we do not wish to be so well informed as ourselves concerning our warlike resources, is naturally suggestive of secrecy. Perhaps, therefore, the term oval qun has been advisedly used, for the purpose of mystification? The newspaper reader suspects the fact. He determines to look out for the next report, and to learn further particulars from the context. Well, a few days elapse, and he finds it mentioned that Lancaster's oval guns are very well adapted for throwing spherical case-shot! This is a quietus—he relinquishes the study of newspaper contexts in despair. An oval gun for throwing spherical case-shot!

But let us see how we can help him. donned our fighting-gear at anyrate, we shall now try what we can do with the new Lancasterian oval gun. First, then, let us premise that the chief cause of irregularity in the flight of all projectiles, is the irregular disposition of the matter round their respective centres of gravity. Every person, in the least degree conversant with mechanical science, must be aware, that of all possible shapes that of a sphere presents the greatest chance of the centre of gravity coinciding exactly with the centre of the object. Nevertheless, if a thousand cannon-balls were set floating in mercury, not two out of the thousand, it is probable, would float alike; thus proving the unequal distribution of parts around the centre. Of course, a similar inequality of distribution exists also in smaller globular masses. Whether we have to do with a cannon-ball or a musketball, the conditions remain the same. However, in the case of small firearms, errors resulting from the cause above mentioned are obviated by rifling the barrel, and converting an ordinary musket into a rifle-If rifling has succeeded so well in the case of small firearms, then why not rifle-cannon, it may be asked? Because simply it could not be done; or if done, the rifling produced with so much labour would be ineffective. The reason of this we shall see by and by; but in the meantime, let us take a glance at the construction of a rifle-gun.

If the finger be thrust into the muzzle of a common

musket or fowlingpiece, nothing will be discoverable but a smooth round bore, going straight down towards the breech. If a rifle—any ordinary rifle, that is to say—be thus examined, it will be found to have peculiarities of its own. The bore, instead of being smooth, as in the instance of the musket or fowlingpiece, will be found indented with a variable number of little furrows and belts; and unless some little attention be devoted to the investigation, no peculiarity of these furrows and belts, technically called lands, will be discoverable. Further examination, however, will prove that they are arranged spirally, but with such elongation as to effect only one, or, it may be, one revolution and a half, in proceeding from the muzzle to the breech. Now it follows, that if a leaden ball be jammed into such a barrel as we have described, in such a manner as to receive an impress of the rifle-lands or ridges, then such ball can emerge from the barrel only by following the threads of the screw, turning rapidly on its axis during the period of discharge, and retaining the same rotatory motion during its atmospheric flight. Of this sort is the motion of a rifle-ball; and the reader will at once see, that the continuous rotatory motion practically compensates for any inequality of ponderable matter on any one lateral aspect of the projectile. Point by point, and with extreme rapidity, every lateral aspect of a rifleball in flight is brought into the same relation with the axis of flight. In this description we have assumed that a bullet emerging from a rifled-barrel must necessarily assume the rifled motion. one condition, however, it may not do so. If the charge of gunpowder be inordinately great, the ball may strip, to use the technical phrase; in other words, it may have its screw-thread rendered ineffective by the mere force of discharge. It appears, then, that the very principle of a rifle-gun necessitates the indentation of the projectile with the lands or grooves wherewith the barrel is furnished: and this brings us to the consideration of loading a rifle. Either the ball is rammed down from the mouth, or it is put in by some trap-door contrivance near the breech, where, fitting tightly, it is made to emerge by the sheer force of gunpowder. Rifles of the latter construction seem best on paper: in practice, however, they have been very sparingly adopted; mouth-loading having continued to be generally preferred. Notwithstanding this preference, they are ordinarily so difficult and so tedious to charge, that much attention has lately been devoted to the perfection of schemes for charging them with greater facility. The most celebrated, and at the same time the most successful of these, is the arrangement of Captain Minié, which, having been adopted by Mr Lancaster in a modified form, we are bound to describe.

The desideratum was, the construction of a projectile which, entering loosely into the barrel, should fit tightly during the act of discharge. M. Delvigne, if we mistake not, was the first to solve this problem. He furnished the breech-end of his rifles with each a little anvil, projecting in the middle, space being left for the charge of gunpowder all around. Against the anvil, the bullet was hammered with an iron ramrod, until, by expanding laterally, it pressed into the furrows of the barrel, and assumed the condition of a screw. M. Delvigne, however, only substituted one difficulty for another: the remedy was almost worse than the disease. If a soldier had to stand hammering with an iron ramrod, he might as well adopt the more ancient expedient of driving in the ball tightly at first. Moreover, the little anvil, or tige, was continually liable to bend and break, and barrels of this kind were difficult to clean. carabine à tige, nevertheless, marked a new era in the history of rifle-guns, and prepared the way for the more practical measures of Captain Minié. We have spoken of the projectile employed by Delvigne as being

a bullet; it, however, was not a bullet, but a cone or conoid-a form of metal which not only presented greater facilities than a globular mass for lateral compression, but which, assuming its sharp end to go foremost, was far better adapted for flight through the air than a globular mass, even when not flattened. Now, it is not a little curious, in running through the history of rifle-guns, to find the adoption of sharp conical projectiles in place of bullets so long deferred. So long as projectiles had to be launched from nonrifled-barrels, the only chance of assuring accuracy of flight in the latter consisted in making them spherical; but rifling being once adopted, theory suggests the employment of elongated projectiles — those more nearly resembling the shape of an arrow. Advantages great and numerous flow from this. Not only is the weight of the projectile no longer rigidly limited by the diameter of the bore, but the projectile itself readily becomes adapted to the principles of Captain Minié now to be mentioned. The shape of a minie ball, if we may be permitted to continue that name, is conoidical, very much like a sugar-loaf in appearance. As regards material, it, like all other small-arm projectiles, is made of lead-a soft, easily expansible material. Now it is clear, that if a nail or plug of any kind were to be driven into the base of a leaden projectile of this kind, the leaden surface would expand, and this is just what the principle of Captain Minie accomplishes. cone-we will no longer term it minié ball-is hollow at the base, and into this hollow a small metallic thimble is loosely inserted. Of course, the thimble in question, from its very position, receives the first shock of inflamed gunpowder-a shock which acts just like a hammer-stroke, driving the thimble a considerable distance up into the hollow cavity, and, as a consequence of this, expanding the walls of the projectile. Such is the system of Captain Minié, which Mr Lancaster has adopted, minus the thimble, in his new small-arm rifle.

We now come to the particular in which Mr Lan-caster's rifle-gun differs from all others. It is totally devoid of grooves or lands. To the touch, it is quite smooth, like any fowlingpiece or musket; neither is the eye competent to detect at once any difference; but on minutely scrutinising the shape of the bore, it will be found to be very slightly oval. Perhaps the reader will anticipate the function which this oval is intended to fulfil; it does not go straight down through the barrel, but revolves in the descent exactly like rifle lands or grooves, and thus would necessarily impart a rotatory motion to any accurately fitting projectile. Such, indeed, is the intention. What, then, are the advantages possessed by an oval or smooth bored over an ordinary grooved rifle? They are numerous. In the first place, there is an end to stripping the projectile, no matter how high the charge: it must assume the screw-like rotation. Secondly, the conical projectile, duly expanded by inflamed gunpowder, accurately fills the rifle-barrel, no space intervening to permit the escape of gas. Thirdly, and what is more to the special point under consideration, the projectile is no longer necessarily required to be made of lead. The problem is no longer to cut screw indentations into a yielding surface, but to adapt an oval plug to an oval cavity. If lead be the material employed, the minié or expansive principle may be adopted with advantage, but equally compatible would it be to fashion the projectile at once of a form corresponding with the bore of the gun, in which case the material of such projectile may be iron. This is a very great point gained. As a rule, cannons must be supplied with iron balls; and iron balls are altogether unmanageable in connection with the principle of ordinary rifles. Supposing, for the sake of argument, that leaden balls were compatible with the necessities of large firearms, still their employment in connection

with ordnance rified on old principles would be impossible. If designed to be charged by the mouth, the mechanical force requisite to drive home to their charge such balls would be enormous; and as regards the idea of breech-loading ordnance, it suggests difficulties greater than those attendant on breech-loading small firearms. What should prevent the construction of cannons bored on Lancaster's oval principle? Why should rified cannons, thus constructed, be inferior in positive accuracy and relative length of flight to oval rified small-arms? These are among the questions now on trial; and the military world—which means just now pretty nearly all Europe—await the decision with much interest.

SONGS OF THE DRAMATISTS.

THE new volume of Mr Bell's Annotated Edition of the English Poets is devoted to the Songs of the Dramatists, from the earliest writer of regular comedy down to Sheridan. The idea of this selection is a happy one, and the volume supplies to a considerable extent what has been long felt as a desideratum in our literature. The general reader, however, will hardly recognise here, we suspect, the 'riches' described by the editor as existing in this branch of our lyrical poetry. A comparatively small number of dramatic songs are poetical, in the higher sense of the word; and the reason is, that they are not spontaneousintroduced for a particular purpose, to illustrate a circumstance or a character. The writers who have a wider margin before them, who sing what they feel or see when the spirit moves them, are generally more successful, notwithstanding the brilliant dramatic lyrics of Shakspeare, Beaumont and Fletcher, and Ben Jonson, that might be cited on the other side. A selection of English lyric poetry which does not include the names of Carew, Withers, Herrick, Heywood, Herbert, Lovelace, and others, can give but a very imperfect idea of the general richness of the language in that style of composition.

Mr Bell's task, however, was confined to the drama; and he has executed it with great care, although in some few instances, towards the end of the volume, he appears to have sacrificed value to novelty—selecting specimens, not because they are the best, but because they are less known than the best. We cannot well see, however, what Sheridan has to do in the series, If no good songs could be found between the beginning and the close of the eighteenth century, it should have ended with Farquhar, instead of springing over a gap of about seventy years, in order to close with the brilliant author of the School for Scandal.

Strange as it may appear, the great advantage possessed by our earlier song-writers consists in the comparative want of polish, so far as the vehicle is concerned. They give the idea fresh, sudden, and direct as it comes, taking their chance as to the melody of the language in which it is delivered. With most of the more modern writers, on the contrary, melody is everything; force, passion, energy, must give way to it; and they elaborate in a stanza an image which their predecessors would have darted like an arrow in a single line. That this directness, however, is perfectly consistent with melody, is proved in individual in-stances, and in the case of Shakspeare throughout, who unites the energy of the old with the sweetness of the new school. It is likewise proved, among the moderns, in the case of Burns, whose force belongs more to the close of the sixteenth century than to his own time, while in musical cadence he is unmatched even by the most effeminate of still later writers. These instances serve to shew that the music exists in the soul of the true poet, and is not the result of elaboration. Ben Jonson studied harder than Shakspeare, and was a more accomplished scholar; but although some of his pieces are

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very graceful, they want as a whole the bewitching melody of his great contemporary.

A misconception of this fact leads some of our living poets far astray. They strive to go back in a certain way to the directness of the old song; but finding that generally associated with roughness, they fancy roughness to be one of its necessary attributes. Even setting this mistake aside, they miss their point; for the arrow of the old poet quivered in the heart, while theirs only tickles the imagination. To draw tears, or excite smiles, they consider wide of the poet's task, the object of which they conceive to be the awakening of surprise or admiration. The sudden sentiment that makes your heart beat and your eyes overflow, is not poetical with them, because it presents no sensuous image to the mind. Their performances, when successful, are, in short, not so much flashes of genius as tricks of ingenuity. A sentiment—not an image—occurs to us at this moment which is worth a whole library of these dexterities. It occurs in a simple Scottish song by Hector M'Neil, in which a young lassie, tempted by her suitor, calls to mind the various reasons why she must not listen to him, but still cling to her widowed mother:

She's gien me meat, she's gien me claes, She's been my comfort a' my days— My faither's death brought mony waes: I canna lea' my mammy!

The suddenness of the line we have distinguished by italics, and its touching associations, are one of the great triumphs of poetry, let the sensuous school smile

as disdainfully as it will.

The simple materials of the old song-writers are well illustrated in the first specimen given in the volume before us. It is from Ralph Roister Doister, the first regular comedy in our language, and certainly printed some time before 1551 :-

THE WORK-GIRLS' SONG.

Pipe, merry Annot; Trilla, Trilla, Trillarie. Work, Tibet; work, Annot; work, Margerie; Sew, Tibet; knit, Annot; spin, Margerie; Let us see who will win the victory.

Pipe, merry Annot; Trilla, Trilla, Trillarie. What, Tibet! what, Annot! what, Margerie! Ye sleep, but we do not, that shall we try; Your fingers be numb, our work will not lie.

Pipe, merry Annot; Trilla, Trilla, Trillarie. Now Tibet; now Annot; now Margerie; Now whippet apace for the maystrie: *
But it will not be, our mouth is so dry.

Pipe, merry Annot; Trilla, Trilla, Trillarie. When, Tibet? when, Annot? when, Margerie? I will not-I can not-no more can I; Then give we all over, and there let it lie!

As an extraordinary contrast to this, and in so short a time after it as 1584, we give a specimen from John Lyly, the inventor of the Euphuism, touching which Sir Percy Shafton lectures so zealously in the Monastery :-

CUPID AND CAMPASPE.

Cupid and my Campaspe played At cards for kisses—Cupid paid; He stakes his quiver, bow and arrows, His mother's doves, and team of sparrows;

* Mastery, superior skill.

Loses them too: then down he throws The coral of his lip, the rose Growing on 's cheek (but none knows how), With these, the crystal of his brow, And then the dimple of his chin; All these did my Campaspe win. At last he set her both his eyes; She won, and Cupid blind did rise. O Love! has she done this to thee? What shall, alas! become of me?

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Passing over Shakspeare and his immediate predessors, we come, in a quarter of a century after this, to Ben Jonson, from whom we are tempted to quote a single song, which, as Mr Bell observes, is a 'remarkable illustration of the art with which he constructed these compositions:'-

THE GRACE OF SIMPLICITY.

Still to be neat, still to be drest, As you were going to a feast; Still to be powdered, still perfumed: Lady, it is to be presumed, Though art's hid causes are not found, All is not sweet, all is not sound.

Give me a look, give me a face, That makes simplicity a grace; Robes loosely flowing, hair as free: Such sweet neglect more taketh me, Than all the adulteries of art: They strike mine eyes, but not my heart.

Here is an exquisite specimen from Beaumont and Fletcher, supposed to be the composition of the latter:—

A 'SAD SONG.'

Weep no more, nor sigh, nor groan, Sorrow calls no time that's gone: Violets plucked, the sweetest rain Makes not fresh nor grow again. Trim thy locks, look cheerfully; Fate's hidden ends eyes cannot see: Joys as winged dreams fly fast, Why should sadness longer last? Grief is but a wound to wo; Gentlest fair, mourn, mourn no mo.

The following, from the same, is well known; but we give it as one of the most finished compositions of the kind in our language :-

MELANCHOLY.

Hence, all you vain delights, As short as are the nights Wherein you spend your folly! There's nought in this life sweet, If man were wise to see 't, But only melancholy; Oh, sweetest melancholy! Welcome, folded arms, and fixed eyes, A sight that piercing mortifies, A look that's fastened to the ground, A tongue chained up without a sound! Fountain heads, and pathless groves, Places which pale passion loves! Moonlight walks, when all the fowls Are warmly housed, save bats and owls! A midnight bell, a parting groan! These are the sounds we feed upon; Then stretch our bones in a still gloomy valley, Nothing's so dainty sweet as lovely melancholy.

The following short piece is from John Webster, touching whom the editor follows what we cannot help thinking the exaggeration of Lamb. 'To move a terror skilfully, observes Lamb-'to touch a soul to the quick -to lay upon fear as much as it can bear-to wear and weary a life till it is ready to drop, and then step in with mortal instruments to take its last forfeit: this only a Webster can do. Writers of an inferior genius may "upon horror's head horrors accumulate," but they cannot do this. They mistake quantity for quality; they "terrify babies with painted devils," but they know not how a soul is capable of being moved; their terrors want dignity, their affrightments are without decorum.'

A DIRGE.

Call for the robin-redbreast and the wren, Since o'er shady groves they hover, And with leaves and flowers do cover The friendless bodies of unburied men. Call unto his funeral dole The ant, the field-mouse, and the mole, To rear him hillocks that shall keep him warm, And (when gay tombs are robbed) sustain no harm; But keep the wolf far thence, that's foe to men, For with his nails he'll dig them up again.

On this Lamb observes: 'I never saw anything like this Dirge, except the Ditty which reminds Ferdinand of his drowned father in the Tempest. As that is of the water, watery; so this is of the earth, earthy. Both have that intenseness of feeling which seems to resolve itself into the elements which it contemplates.'

The following is from the *Thracian Wonder*, by Webster and Rowley, and, one would suppose, must be the composition of the latter:—

THE PURSUIT OF LOVE.

Art thou gone in haste?
I'll not forsake thee;
Runnest thou ne'er so fast,
I'll overtake thee:
Over the dales, over the downs,
Through the green meadows,
From the fields, through the towns,
To the dim shadows.

All along the plain,
To the low fountains,
Up and down again
From the high mountains;
Echo then shall again
Tell her I follow,
And the floods to the woods,
Carry my holla, holla!
Ce! la! ho! ho! hu!

The two next will form an agreeable contrast. The Death-bell is by Heywood, and the Bridal-song by Ford:—

THE DEATH-BELL.

Come, list and hark, the bell doth toll For some but now departing soul. And was not that some ominous fowl, The bat, the night-crow, or screech-owl? To these I hear the wild wolf howl, In this black night that seems to scowl. All these my black-book death enroll, For hark, still, still, the bell doth toll For some but now departing soul.

BRIDAL-SONG.

Comforts lasting, loves increasing,
Like soft hours never ceasing;
Plenty's pleasure, peace complying,
Without jars, or tongues envying;
Hearts by holy union wedded,
More than theirs by custom bedded;
Fruitfal issues; life so graced,
Not by age to be defaced;
Budding as the year ensu'th,
Every spring another youth:
All what thought can add beside,
Crown this Bridegroom and this Bride!

We shall now present a specimen from Shirley, with whom 'terminates the roll of the great writers whose works form a distinct era in our dramatic literature. He was the last of a race of giants. Born in the reign of Elizabeth, he lived to witness the Restoration, and carried down to the time of Charles I. the moral and poetical elements of the age of Shakspeare. New modes and a new language set in with the Restoration; and the line that separates Shirley from his immediate successors, is as clearly defined and as broadly marked as if a century had elapsed between them.' The poet was a Protestant clergyman; he then fell off into Romanism; and, finally, became a writer for the stage. Being burned out by the fire of London, his wife and he suffered so much by the alarm and loss they had sustained, that they both died on the same day:—

LOVE'S HUE-AND-CRY.

In Love's name you are charged hereby To make a speedy hue-and-cry, After a face who, t'other day, Came and stole my heart away; For your directions in brief, These are best marks to know the thief: Her hair a net of beams would prove, Strong enough to captive Jove, Playing the eagle; her clear brow Is a comely field of snow. A sparkling eye, so pure a gray As when it shines it needs no day. Ivory dwelleth on her nose; Lilies, married to the rose, Have made her cheek the nuptial-bed; Her lips betray their virgin red, As they only blushed for this, That they one another kiss. But observe, beside the rest, You shall know this felon best By her tongue; for if your ear Shall once a heavenly music hear, Such as neither gods nor men But from that voice shall hear again, That, that is she! Oh! take her t'ye, None can rock heaven asleep but she.

Whether Sir William Davenant was the son of Shakspeare or not, he certainly had no inheritance in his dramatic genius; and yet we question whether the following lively, leaping song, if found among the supposed paternal lyrics, would be considered the worst in the collection:—

JEALOUSY.

This cursed jealousy, what is 't?

Tis love that has lost itself in a mist;

Tis love being frighted out of his wits;

Tis love that has a fever got;

Love that is violently hot,

But troubled with cold and trembling fits.

Tis yet a more unnatural evil:

Tis the god of love, tis the god of love, possessed with a devil.

Tis rich corrupted wine of love,
Which sharpest vinegar does prove;
From all the sweet flowers which might honey make,
It does a deadly poison bring:
Strange serpent which itself doth sting!
It never can sleep, and dreams still awake;
It stuffs up the marriage-bed with thorns.
It gores itself, it gores itself, with imagined horns.

Here we would conclude; but as Sheridan has been lugged into the volume, head and shoulders, we must give a moreau from him. It shall not be Let the Toast Pass, 'perhaps the most popular song in the

language,' but one nearly as good, although the idea is not original:-

LOVE FOR LOVE.

I ne'er could any lustre see
In eyes that would not look on me;
I ne'er saw nectar on a lip,
But where my own did hope to sip.
Has the maid who seeks my heart
Cheeks of rose, untouched by art?
I will own the colour true,
When yielding blushes aid their hue.

Is her hand so soft and pure?
I must press it, to be sure;
Nor can I be certain then,
Till it, grateful, press again.
Must I, with attentive eye,
Watch her heaving bosom sigh?
I will do so, when I see
That heaving bosom sigh for me.

THE MONTH:

The past few weeks have been especially fruitful in matters electrical, some of which possess more than ordinary interest, and are striking instances of advance in scientific research. One is Dr Watson's electric-light railway signal-lamp, which, as the inventor avers, can be seen at a distance of five miles through the densest fog. The ordinary lamps, as is well known, are comparatively useless in thick weather; and if the new light be as penetrating as is asserted, it may do signal service in preventing such collisions as those by which we have been startled of late on

certain lines of railway.

The electro-magnetic weaving-machine, which we have more than once mentioned, is growing more and more into a practical reality. The inventor, Cavaliere Bonelli, has sold his patent to two eminent banking firms at Turin and Lyon: models are soon to be exhibited in Paris and London, and in the United States; and no doubt is entertained that the machine will effect a great change in the weaving art. The invention is indeed one of the most remarkable applications of electro-magnetism to industrial purposes we have yet heard of. Most persons will remember the Jacquard-looms in the Great Exhibition, and the large perforated cards, or cartoons, which had to be shifted with every movement of the shuttle to produce the pattern. In the electro-magnetic loom, instead of cards, numbers of small iron bars are employed, arranged in sets according to the pattern; and these being in connection with the magnets, move obedient to the will of the designer each time the shuttle leaves his hand. The movements are, of course, effected by a repeated making and breaking of the magnetic current, aided by an instrument similar in construction to a comb, which strikes the bars at the required moment, and throws them in or out of position according to the nature of the design. It is in the 'comb,' we believe, that the pattern is first set, after which its reproduction is a mere question of time; but it reappears in the woven material as accurately as a message printed at one end of a telegraph-wire is repeated in print at the other. From these particulars we see that the new apparatus offers considerable advantages to the silk-weaving trade, and there is this further in its favour, that it may be fitted to Jacquardlooms at present in use. Some of the initiated say that tapestries and textile designs, however exquisite, will be so readily reproduced by the aid of electro-magnetism, as to supply the most beautiful materials for dress and decoration to all classes of purchasers. We may add here, that a new weaving-machine, called

the 'appréteuse,' is about to be tried in the cloth factories at Leeds. It combines the principle of the 'gig' and 'shearing-machine,' and at Rouen, and some other manufacturing towns on the continent, has been found superior to any machine yet introduced for the same purpose.

Next comes M. Becquerel's new method of treating mineral ores, the result of twenty years' study, which, in two words, is electro-chemical. Every one knows that in the separation of metal from the earthy matters with which it is combined, certain processes are gone through, involving the use of quicksilver or of fire, as in smelting, cupellation, &c., varying according to the nature of the metal operated on. For all these, M. Becquerel proposes to substitute an electro-chemical action, by which he dispenses with them entirely. Seeing that his experiments have been made on more than 10,000 kilogrammes of ores of silver, copper, and lead, from Mexico, Peru, the Altai Mountains, and other parts of the globe, there is no question as to the attention due to the results. We must content ourselves with a brief outline of the process. The ore is first treated in such a way that its constituents shall be soluble in a solution of common salt at the maximum of saturation. In the case of galena, the constituents are chloride of silver and sulphate of lead. When these are dissolved, the liquid is transferred to wooden vats or reservoirs, in which the decomposition of the metallic salts is effected by means of a galvanic-battery, the plates of which vary according to the nature of the metal to be thrown down-carbon in some instances being used for the negative. The battery being set in action, the operation, as a rule, is complete in twenty-four hours, but may be accelerated by the application of heat. Argentiferous lead gives up all its silver without the necessity for cupellation; and ores the most refractory, such as blende and gray copper, yield readily to this mode of treatment. The experiments have all been satis-factorily confirmed by M. St Clair, a refiner of Mexico, who in his report dwells strongly on the fact, that the exhaustion of quicksilver-mines, long dreaded by American miners, need no longer be feared, as quicksilver will no longer be required in their operations. Only in places where common salt is very dear, would the electro-chemical process be too expensive to be profitable.

M. Becquerel has published a book containing a full account of his method; and we commend it to the notice of miners in this country, where the price of salt is no difficulty in the way of experiment, and where any means by which fuel and labour may be

saved claim serious consideration.

A 'liquid purifier' has been invented by Mr B. L. Phillips, which is understood to effect a great improvement in the manufacture of iron and other metals. It is introduced as a flux when the metal is in a state of fusion; and, according to the Mining Journal, the result as regards iron is an increase in the strength of the bar by at least 16 per cent. Copper and brass have been experimented upon with equal success; and the Birmingham Journal states, that the purifier has been proved to add greatly to the crystalline and cohesive properties of class.

of glass.

The next is an instance of the employment of electricity in furtherance of astronomical science. Father Secchi, of the observatory at Rome, is carrying on an important series of magnetic observations, during which has found in the movements of the bar-magnets a means of detecting the appearance of the aurora. Wishing to extend his researches to other celestial phenomena, he suggests calling in the aid of the electric relegraph in the observation of shooting-stars. For instance: a meteor being seen at one observatory, information of the fact is to be instantaneously flashed to the next beyond, and so on, thus enabling two or

more observers to notice the same object; and then, by subsequent comparison and calculation, to discover whether they all saw it at the same instant, and in the same part of the sky. These and some other points being ascertained, it will be possible to clear up certain doubts that now confuse the question of shooting-stars. From some few experiments made between Rome and Naples, Father Secchi believes the present notions on the subject to stand in need of rectification.

M. Deville is pursuing his task of extracting aluminum from clay with the most marked success latest achievements having been laid before the Académie in sheets, ingots, and medals, all of the new metal. M. Castels has discovered a way of making artificial quinine, by a process not yet made public; but if the fact be as he states, a step is here gained in an important branch of chemistry which promises well for further discovery. Fresenius has done something towards preventing the incrustation of steamboilers which is worth recording. Having observed that incrustation is due rather to sulphate than carbonate of lime, he throws soda into the water as a remedy, in the proportion of 78 of soda to 100 of the sulphate, and thus neutralises the latter. 'Take,' he says, 'a given quantity of water from the boiler, filtered if necessary, divide it into two portions, add to one a portion of soda, to the other a small quantity of lime-water. If the former remains clear while the latter becomes somewhat slightly turbid, the proportion of soda is correct; if the contrary, soda must be added; but if the lime-watered portion becomes very thick, then the soda must be diminished.' This experiment is simple enough, and there appears to be no reason why it should not be tried wherever incrusted boilers

The continued ravages of the vine-disease, and consequent increase in the price of wine, has led a Parisian chemist, M. Hoffmann, to seek for some vegetable substance from which alcohol might be distilled suitable as a beverage. After sundry trials, he found what he wanted in a gramineous plant, the Triticum repens, or couch-grass, the roots of which are known to be sweet and nourishing, though regarded by agriculturists as a noxious weed. This grass, properly treated, yields a 'colourless alcohol, of agreeable flavour, without any empyreumatic odour, and altogether analogous to that obtained from sugar.' Whether it be desirable to increase the production of alcohol may admit of question; but as great quantities are needed for manufacturing purposes, farmers and others might find it worth their while to collect couch-grass for distillation, instead of burning it.

are complained of.

Foucault is again making the rotation of the earth visible to the eye, and with an apparatus that exhibits the phenomenon more palpably to the ordinary observer than did his famous pendulum experiment, which was so much talked of two years ago. The contrivance now used resembles, in its main features, the beam and wheel to which we drew attention last April: the wheel being made to rotate rapidly, sets in motion a second wheel moving slowly in a different plane. Gradually, as the movement continues, the axis of the latter places itself precisely in a line with the true meridian of the place where the experiment is tried, as is clearly seen by the spectator looking through a telescope fixed at a short distance off on the same floor. Stability and quiet are required for the success of the experiment, and M. Foucault has been permitted to fix his apparatus in the Pantheon, where he demonstrates the rotation of the earth to numbers of admiring Parisians. There is more in this experiment than appears at first sight. It furnishes a means whereby the true meridian may be found in any part of the world, and thus the deviation of the magnetic meridian may be detected, the compass corrected, and dockyards are in direct telegraphic communication the dangers from magnetic disturbances avoided. In with the Admiralty offices in London. Again has an

fact, it is said, that with this apparatus properly fitted. a ship might go to sea without a compass; but as yet the difficulty of neutralising the motion of a vessel on the waves presents an insurmountable obstacle. From another quarter we hear of a machine which, fitted under the bottom of a ship, indicates by a dial on deck the rate of sailing; and of a 'marine clock,' that tells the latitude and longitude while the vessel pursues her

The great oceanic survey is advancing from discussion into real practice: the governments of Holland, Belgium, Portugal, and Prussia, complying with the recommendations of the 'maritime conference' last year at Brussels, have prepared lists of their ships to be employed in the observations, and issued the necessary instructions to their captains. These, with the United States and British vessels which are already engaged in the work, will be able to make a good beginning in all latitudes, and is a task which pre-eminently requires the amplest co-operation.

While science is thus busy on the ocean, she is turning her attention to a rather delicate question on land. We do not yet know so much as we ought to know of the weight and mass of the earth, and the relation it bears in these particulars to the other planets. The question is one which has arisen again and again, in proportion with the growing sense that rigorous exactitude in scientific research is an indispensable condition; and attempts to solve it have been made in various ways—by swinging a pendulum in different latitudes, and by observations of the attraction of suspended balls. Some twenty-five years ago, certain eminent members of the Astronomical Society swung a pendulum at the top and bottom of the Dolcoath Mine, in Cornwall, but failed to arrive at any satisfactory conclusions—perhaps because of the flood which drove them from the lowest part of the mine before their second series of experiments was completed. Now, a new attempt is being made by the astronomer-royal, who, when he thinks a thing ought to be done, loses little time in setting about it. He has chosen the north for the scene of his experiments, and has set up his pendulums at the Horton Mine, at Shields, on the banks of the Tyne. The depth of the mine is 1200 feet; and as the pendulums are placed in electric communication with each other, we may hope that it will be found possible to detect differences of the earth's action upon them, at the surface and far below it. These differences being determined, will furnish data for calculating the effect of different strata, and shew what is to be allowed for geological structure, and what for density. Although these experiments may not solve the whole question, it is impossible not to wish them success, when we remember of what importance the answer will be to astronomical science.

A curious experiment has been made in France, apparently to shew that swallows can be made to do the work of carrier-pigeons; for in these days of telegraph-wires, any other object seems to be out of the question. Six swallows were carried to Vienna, where, a small slip of paper, bearing a written communication, having been tied under the breast of each, they were let loose to find their way back again. It was seven in the morning when they started: two reached Paris at one in the afternoon of the same day; a third, between two and three; and the last, at four; while two of the six never made their appearance at all. Leaving this fact to speak for itself, and be accepted for what it may seem worth, we go on to remark that a project is talked of for laying a submarine wire from Corfu, or Cephalonia, to some Dalmatian port. Another attempt is being made to carry a wire from Holyhead to Howth; and six of our principal attempt been made to send a signal through water without a wire; this time, at Portsmouth, where it was attended with partial success. The thing has often been tried: a few years ago, a couple of savans might have been seen sending their messages across those minor lakes known to Londoners as Hampstead ponds. It must not be reckoned among the impossibilities. An Aëronautical Society is on the tapis-to experiment on, and investigate the possibilities of aerial navigation. Not yet, we fancy, will Tennyson's vision of 'argosies with magic sails' gliding through the heavens be realised. In a freestone quarry at Airdrie, nearly forty feet below the surface, a fossil-tree has been found, with roots in some parts six feet thick. Some fossilised nuts were picked up in the same place, forming altogether a most interesting prize for geologists. Livingston, who, a year or two ago, made a remarkable exploration in Eastern Africa, has just been heard of at a place in Angola, 150 miles from the coast, to which he had travelled through the interior from the Cape of Good Hope. If this be true, the worthy missionary will have made one of the most successful journeys on record. Among the victims of cholera, we regret to see the name of Signor Melloni of Naples, so well known for his researches into the radiation of heat, and for the soundness and originality of his views. His death is a real loss to science.

Captain Galton's report of railways, just published, shews the total length of finished railway in the United Kingdom in 1853 to have been 7686 miles, leaving more than 3000 miles still to be made. Nearly 6000 miles of the amount are in England. The total receipts in the same year were L.18,035,879; and the number of passengers 102,286,660—being 13,000,000 more than in 1852. It is worthy of remark, that while the first and second class receipts shew a decrease, those from third-class passengers present a considerable increase. Perhaps it is for this reason that the third-class carriages on the Great Western Railway are now improved into most comfortable and

convenient vehicles.

The Commissioners of the Great Exhibition of 1851 have sent a circular to the authorities of the free museums throughout the kingdom, offering 'to present to them collections of illustrative samples, amounting to some hundreds of specimens, and consisting chiefly of raw produce, taken from the trade collection.' To which may be added the fact, that thirty-five certificates for proficiency have been granted by the Government Department of Science and Art to as many students. Is not this a sign that the schools are

progressing?

Captain Penny's whaling-expedition to Davis's Strait, which we mentioned at the time of its sailing, has proved completely successful. It was undertaken with a view to see whether a resident establishment would not prove more profitable than the ordinary mode of fishing, and the two vessels which sailed in July last year, wintered at Kumsooka; and now the captain has come home with one of his ships, and the other is following—both full of oil, valued at L.8000. There are deposits of plumbago and other minerals near the settlement, and it is possible that in time these may come to be worked in conjunction with the fishery, though it is but an inhospitable region for colonists.

The Commissioners of the Irish Fisheries, in their Report for 1853, give some particulars respecting the artificial production of salmon, which we have much pleasure in repeating here, as helping on a work the success of which will add so largely to the food resources of the nation. Having considered that the persons who rear the young salmon in the spawning-beds, should not lose the reward for their trouble on the migration of the fry to the salt water, the commissioners suggested the formation of a reservoir on

the margin of the sea at Kingstown, which appears to have been effected, for they say: 'This may be termed a sea-pond, 200 feet long by about 50 feet wide, and 6 feet deep at low-water. A rise of 6 or 7 feet occurs at every tide, flowing in through a grating placed across the entrance to confine the fish within. We took fry from the fresh waters of the Liffey and Bray rivers, at the proper age and migratory state, and have transferred them to this pond, where they can now be seen daily. They are watched by many persons anxious for the result of this experiment, and appear to be thriving well, and have increased considerably in size.

'Very small fish pass in through the grating from the harbour, and the young salmon are seen feeding upon them. If,' continue the commissioners—and we gladly support their suggestion—'if this experiment should succeed in demonstrating that salmon may be thus successfully kept under control, until they attain to a size rendering them valuable in an edible point of view, innumerable enclosures may be made around the coast, varying in extent according to circumstances; and by these means, the artificial production of salmon may

become of vast importance.

THE SULTAN.

We were ushered up the grand staircase of the palace, towards the large reception-room where sovereignty was embodied in propriá personá. This apartment is one of ample dimensions, and its numerous windows look out on the winding Baghaz. It is plainly yet neatly furnished: like Reschid Pacha's room, it is covered with a light matting, and divans form the prominent buttresses of the four walls. Handsome mirrors, from ceiling to floor; wonderful clocks; a few chairs of ordinary stamp; two or three mosaic tables; and two large globes on stands, complete the rapid inventory. At one end of the room, and the centre of all eyes, on the 'centre of the universe,' sat the sultan on a divan, which was raised by a platform. His shoulders were covered with the cloak he generally wears, clasped around the neck with diamonds. He was looking better than usual, though his general appearance is not one strongly marked. He is a man of moderate stature—probably five feet six inches—and delicate frame, having a slight dropping and recession of the chin, accompanied by a laxity of the muscles of the mouth, denoting that want of firmness which is a point of his character. His hair is black, and his eyes small and languid. With these personal disadvantages, heightened in walking by the bandy-leg movement, he has the redeeming trait of a natural goodness of heart, which, if cultivated and unrestrained, would lead to a great amelioration of his people. True, he has often shewn this fact at different times and in different actions, and he possesses a strong inclination to deeds of charity, kinds and liberality, which is diminished, if not counteracted by a selfish and intriguing ministry.-Correspondent of the New York Times.

STEAM FIRE-ENGINE.

A committee appointed by the common-council of this city, has visited Cincinnati, at their own expense, for the purpose of seeing the efficiency of the fire department of that city. In order to shew the New Yorkers what the firemen of that city could do, an alarm of fire was given, and in seven minutes thereafter every engine was on the ground ready for work. Among these were the two steam fire-engines, which were throwing streams of water in nine minutes after the torch was applied to kindle the fire under their boilers. Both engines threw eight streams through three-quarter inch nozzles a distance of 120 feet. They were tested in every possible way, and the committee, we understand, are well pleased with what they witnessed.—

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